

SEQUENCE LISTING

<110> ROSENBERG, STEVE
DOYLE, MICHAEL
CHAPMAN, HAROLD

<120> PEPTIDE LIGANDS OF THE UROKINASE RECEPTOR

<130> 014024-0284102

<140> 09/155,260

<141> 1998-09-23

<150> PCT/US97/05199

<151> 1997-03-28

<150> 08/623,361

<151> 1996-03-28

<160> 76

<170> PatentIn Ver. 2.1

<210> 1

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<212> PRT

<213> Artificial Sequence

<220>

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peptide ligand

<400> 1

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Pro | Val | Tyr | Gln | Tyr | Glu | Leu | Asp | Ser | Tyr | Leu | Arg | Ser | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

<210> 2

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide ligand

<400> 2

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Phe | Phe | Lys | Leu | Gly | Pro | Asn | Gly | Tyr | Val | Tyr | Leu | His | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

<210> 3

<211> 16

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<220>

<223> Description of Artificial Sequence: Synthetic

peptide ligand

<400> 3

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Leu | Asp | Leu | Ser | Thr | Phe | Tyr | Asp | Ile | Gln | Tyr | Leu | Leu | Arg |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

<210> 4

<211> 16

<212> PRT

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<220>

<223> Description of Artificial Sequence: Synthetic
peptide ligand

<400> 4

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Ser | Thr | Tyr | His | His | Leu | Ser | Leu | Gly | Tyr | Met | Tyr | Thr | Leu |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

<210> 5

<211> 11

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peptide ligand

<220>

<221> MOD_RES

<222> (3)

<223> Any amino acid

<220>

<221> MOD_RES

<222> (5)..(6)

<223> Any amino acid

<400> 5

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | His | Xaa | Leu | Xaa | Xaa | Gly | Tyr | Met | Tyr | Thr |
| 1 | | | | 5 | | | | | 10 | |

<210> 6

<211> 11

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<223> Description of Artificial Sequence: Synthetic
peptide ligand

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<222> (4)..(6)

<223> Any amino acid

<400> 6

Phe Lys Leu Xaa Xaa Xaa Gly Tyr Val Tyr Leu
1 5 10

<210> 7

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide ligand

<400> 7

Ala Glu Pro Met Pro His Ser Leu Asn Phe Ser Gln Tyr Ala Trp Tyr
1 5 10 15

<210> 8

<211> 16

<212> PRT

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<223> Description of Artificial Sequence: Synthetic
peptide ligand

<400> 8

Val Glu Tyr Arg Asp Ala Tyr Ser Tyr Pro Gln Tyr Leu Ser Tyr Leu
1 5 10 15

<210> 9

<211> 47

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
peptide ligand

<400> 9

Asp Gln Glu Ser Cys Lys Gly Arg Cys Thr Glu Gly Phe Asn Val Asp
1 5 10 15

Lys Lys Cys Gln Cys Asp Glu Leu Cys Ser Tyr Tyr Gln Ser Cys Cys
20 25 30

Thr Asp Tyr Thr Ala Glu Cys Lys Pro Gln Val Thr Arg Gly Asp
35 40 45

<210> 10

<211> 17

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<223> Description of Artificial Sequence: Synthetic peptide ligand

<400> 10

Ala Glu Pro Val Tyr Gln Tyr Glu Leu Asp Ser Tyr Leu Arg Ser Tyr
1 5 10 15

Tyr

<210> 11

<211> 17

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic peptide ligand

<400> 11

Ala Glu Leu Asp Leu Ser Thr Phe Tyr Asp Ile Gln Tyr Leu Leu Arg
1 5 10 15

Thr

<210> 12

<211> 17

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic peptide ligand

<400> 12

Ala Glu Pro Val Tyr Gln Tyr Glu Leu Asp Ser Tyr Leu Arg Ser Tyr
1 5 10 15

Tyr

<210> 13

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide ligand

<400> 13

Ala Glu Phe Phe Lys Leu Gly Pro Asn Gly Tyr Val Tyr Leu His Ser
1 5 10 15

Ala

<210> 14
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide ligand

<400> 14
 Ala Glu Leu Asp Leu Ser Thr Phe Tyr Asp Ile Gln Tyr Leu Leu Arg
 1 5 10 15

Thr

<210> 15
 <211> 17
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide ligand

<400> 15
 Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly Tyr Met Tyr Thr Leu
 1 5 10 15

Asn

<210> 16
 <211> 17
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide ligand

<400> 16
 Ala Glu Pro Met Pro His Ser Leu Asn Phe Ser Gln Tyr Leu Trp Tyr
 1 5 10 15

Thr

<210> 17
 <211> 19
 <212> PRT
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<220>
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 peptide ligand

<400> 17

Cys Leu Asn Gly Gly Thr Ala Val Ser Asn Lys Tyr Phe Ser Asn Leu
 1 5 10 15

His Trp Cys

<210> 18

<211> 6

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: C-terminal
 epitope tag

<400> 18

Glu Tyr Met Pro Met Glu
 1 5

<210> 19

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 19

Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly Tyr Met Tyr Thr
 1 5 10 15

<210> 20

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 20

Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly Tyr Met Tyr
 1 5 10

<210> 21

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 21

Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly Tyr Met
 1 5 10

<210> 22

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 22

Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly Tyr
 1 5 10

<210> 23

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 23

Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly
 1 5 10

<210> 24

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 24

Ala Glu Ser Thr Tyr His His Leu Ser Leu
 1 5 10

<210> 25

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 25
 Ala Glu Ser Thr Tyr His His Leu Ser
 1 5

<210> 26
 <211> 8
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 26
 Ala Glu Ser Thr Tyr His His Leu
 1 5

<210> 27
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 peptide

<400> 27
 Glu Ser Thr Tyr His His Leu Ser Leu Gly Tyr Met Tyr Thr Leu Asn
 1 5 10 15

<210> 28
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
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 peptide

<400> 28
 Ser Thr Tyr His His Leu Ser Leu Gly Tyr Met Tyr Thr Leu Asn
 1 5 10 15

<210> 29
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 <212> PRT
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 peptide

<400> 29

Thr Tyr His His Leu Ser Leu Gly Tyr Met Tyr Thr Leu Asn
1 5 10

<210> 30

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 30

Tyr His His Leu Ser Leu Gly Tyr Met Tyr Thr Leu Asn
1 5 10

<210> 31

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 31

His His Leu Ser Leu Gly Tyr Met Tyr Thr Leu Asn
1 5 10

<210> 32

<211> 11

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
peptide

<400> 32

His Leu Ser Leu Gly Tyr Met Tyr Thr Leu Asn
1 5 10

<210> 33

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 33

Leu Ser Leu Gly Tyr Met Tyr Thr Leu Asn
1 5 10

<210> 34

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 34

Ser Leu Gly Tyr Met Tyr Thr Leu Asn
1 5

<210> 35

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 35

Leu Gly Tyr Met Tyr Thr Leu Asn
1 5

<210> 36

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 36

Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly
1 5 10

<210> 37

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 37

Glu Ser Thr Tyr His His Leu Ser Leu Gly Tyr
1 5 10

<210> 38

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 38

Ser Thr Tyr His His Leu Ser Leu Gly Tyr Met
1 5 10

<210> 39

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 39

Thr Tyr His His Leu Ser Leu Gly Tyr Met Tyr
1 5 10

<210> 40

<211> 11

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
peptide

<400> 40

Tyr His His Leu Ser Leu Gly Tyr Met Tyr Thr
1 5 10

<210> 41

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 41
 His His Leu Ser Leu Gly Tyr Met Tyr Thr Leu
 1 5 10

<210> 42
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 42
 His Leu Ser Leu Gly Tyr Met Tyr Thr Leu Asn
 1 5 10

<210> 43
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 43
 Ala Glu Ser Thr Tyr His His Gly Pro Asn Gly Tyr Met Tyr Thr Leu
 1 5 10 15

Asn

<210> 44
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 44
 Ala Glu Ser Thr Tyr His His Ser Pro Asn Gly Tyr Met Tyr Thr Leu
 1 5 10 15

Asn

<210> 45
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic

peptide

<400> 45

Ala Glu Ser Thr Tyr His His Ala Pro Asn Gly Tyr Met Tyr Thr Leu
 1 5 10 15

Asn

<210> 46

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 46

Ala Glu Ser Thr Phe His His Leu Ser Leu Gly Tyr Met Tyr Thr Leu
 1 5 10 15

Asn

<210> 47

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<220>

<221> MOD_RES

<222> (5)

<223> L1-Napthylalanine

<400> 47

Ala Glu Ser Thr Xaa His His Leu Ser Leu Gly Tyr Met Tyr Thr Leu
 1 5 10 15

Asn

<210> 48

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<220>

<221> MOD_RES

<222> (5)

<223> L2-Napthylalanine

<400> 48

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Ser | Thr | Xaa | His | His | Leu | Ser | Leu | Gly | Tyr | Met | Tyr | Thr | Leu |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

Asn

<210> 49

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 49

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Ser | Thr | Tyr | His | His | Leu | Ser | Leu | Gly | Phe | Met | Tyr | Thr | Leu |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

Asn

<210> 50

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<221> MOD_RES

<222> (12)

<223> L1-Napthylalanine

<400> 50

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Ser | Thr | Tyr | His | His | Leu | Ser | Leu | Gly | Xaa | Met | Tyr | Thr | Leu |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

Asn

<210> 51

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<221> MOD_RES

<222> (12)

<223> L2-Napthylalanine

<400> 51

Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly Xaa Met Tyr Thr Leu
 1 5 10 15

Asn

<210> 52

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 52

Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly Tyr Met Phe Thr Leu
 1 5 10 15

Asn

<210> 53

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<220>

<221> MOD_RES

<222> (14)

<223> L1-Napthylalanine

<400> 53

Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly Tyr Met Xaa Thr Leu
 1 5 10 15

Asn

<210> 54

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<220>

<221> MOD_RES

<222> (14)

<223> L2-Napthylalanine

<400> 54

Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly Tyr Met Xaa Thr Leu
 1 5 10 15

Asn

<210> 55

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 55

Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly Tyr Val Tyr Thr Leu
 1 5 10 15

Asn

<210> 56

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<220>

<221> MOD_RES

<222> (13)

<223> L-Norleucine

<400> 56

Ala Glu Ser Thr Tyr His His Leu Ser Leu Gly Tyr Xaa Tyr Thr Leu
 1 5 10 15

Asn

<210> 57

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<220>

<221> MOD_RES

<222> (13)

<223> alpha-aminobutyric acid

<400> 57

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Ser | Thr | Tyr | His | His | Leu | Ser | Leu | Gly | Tyr | Xaa | Tyr | Thr | Leu |
| 1 | | | | | 5 | | | | 10 | | | | | 15 | |

Asn

<210> 58

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 58

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ala | Phe | Phe | Lys | Leu | Gly | Pro | Asn | Gly | Tyr | Val | Tyr | Leu | His | Ser |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

Ala

<210> 59

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 59

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Ala | Phe | Lys | Leu | Gly | Pro | Asn | Gly | Tyr | Val | Tyr | Leu | His | Ser |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

Ala

<210> 60

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 60

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Phe | Ala | Lys | Leu | Gly | Pro | Asn | Gly | Tyr | Val | Tyr | Leu | His | Ser |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |

Ala

<210> 61

<211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 61
 Ala Glu Phe Phe Ala Leu Gly Pro Asn Gly Tyr Val Tyr Leu His Ser
 1 5 10 15

Ala

<210> 62
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 62
 Ala Glu Phe Phe Lys Ala Gly Pro Asn Gly Tyr Val Tyr Leu His Ser
 1 5 10 15

Ala

<210> 63
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 63
 Ala Glu Phe Phe Lys Leu Ala Pro Asn Gly Tyr Val Tyr Leu His Ser
 1 5 10 15

Ala

<210> 64
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 64

Ala Glu Phe Phe Lys Leu Gly Ala Asn Gly Tyr Val Tyr Leu His Ser
 1 5 10 15

Ala

<210> 65

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 65

Ala Glu Phe Phe Lys Leu Gly Pro Ala Gly Tyr Val Tyr Leu His Ser
 1 5 10 15

Ala

<210> 66

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 66

Ala Glu Phe Phe Lys Leu Gly Pro Asn Ala Tyr Val Tyr Leu His Ser
 1 5 10 15

Ala

<210> 67

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 67

Ala Glu Phe Phe Lys Leu Gly Pro Asn Gly Ala Val Tyr Leu His Ser
 1 5 10 15

Ala

<210> 68

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 68

Ala Glu Phe Phe Lys Leu Gly Pro Asn Gly Tyr Ala Tyr Leu His Ser
1 5 10 15

Ala

<210> 69

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 69

Ala Glu Phe Phe Lys Leu Gly Pro Asn Gly Tyr Val Ala Leu His Ser
1 5 10 15

Ala

<210> 70

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 70

Ala Glu Phe Phe Lys Leu Gly Pro Asn Gly Tyr Val Tyr Ala His Ser
1 5 10 15

Ala

<210> 71

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 71

Ala Glu Phe Phe Lys Leu Gly Pro Asn Gly Tyr Val Tyr Leu Ala Ser
1 5 10 15

Ala

<210> 72
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 72
 Ala Glu Phe Phe Lys Leu Gly Pro Asn Gly Tyr Val Tyr Leu His Ala
 1 5 10 15

Ala

<210> 73
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 73
 Ala Glu Phe Phe Lys Leu Ser Pro Asn Gly Tyr Val Tyr Leu His Ser
 1 5 10 15

Ala

<210> 74
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 74
 Ala Glu Phe Phe Lys Leu Ala Pro Asn Gly Tyr Val Tyr Leu His Ser
 1 5 10 15

Ala

<210> 75
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic

peptide

<400> 75

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Phe | Phe | Lys | Leu | Gly | Pro | Asn | Ser | Tyr | Val | Tyr | Leu | His | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

Ala

<210> 76

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 76

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Glu | Phe | Phe | Lys | Leu | Gly | Pro | Asn | Ala | Tyr | Val | Tyr | Leu | His | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

Ala